

TO REVIEW THE ROLE OF THE DEPARTMENT  
OF DEFENSE JOINT REQUIREMENTS OVERSIGHT  
COUNCIL (JROC)

Y 4. AR 5/3: S. HRG. 104-711

To Review the Role of the Department...

HEARING

BEFORE THE

COMMITTEE ON ARMED SERVICES  
UNITED STATES SENATE

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

FEBRUARY 28, 1996

Printed for the use of the Committee on Armed Services



SUPERINTENDENT OF DOCUMENTS  
DEPOSITORY

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# TO REVIEW THE ROLE OF THE DEPARTMENT OF DEFENSE JOINT REQUIREMENTS OVER- SIGHT COUNCIL (JROC)

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WEDNESDAY, FEBRUARY 28, 1996

U.S. SENATE,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC.*

The committee met, pursuant to notice, at 9:30 a.m. in room SR-222, Russell Senate Office Building, Senator Strom Thurmond (Chairman) presiding.

Committee members present: Senators Thurmond, Warner, Lott, Coats, Hutchison, Santorum, Nunn, Levin, Robb, and Lieberman.

Committee staff members present: Richard L. Reynard, staff director; George W. Lauffer, deputy staff director; Donald A. Deline, general counsel; Christine K. Cimko, press secretary, Pamela L. Farrell, research assistant.

Professional staff members present: Romie L. Brownlee, Jonathan L. Etherton, Lawrence J. Lanzillotta, Stephen L. Madey, Jr., Steven C. Saulnier, Cord A. Sterling, Eric H. Thoemmes, and Bert Mizosawa.

Minority staff members present: Andrew S. Effron, minority counsel; Richard D. DeBobes, counsel; Creighton Greene, professional staff member; Patrick T. Henry, professional staff member; William E. Hoehn, Jr., professional staff member; Michael J. McCord, professional staff member; Daniel Ginsberg, research assistant.

Staff assistants present: Deasy Wagner, Jennifer Wallace, Shawn Edwards, and Reaves McLeod.

Committee members' assistants present: Judith A. Ansley, assistant to Senator Warner; Ann E. Sauer, assistant to Senator McCain; Richard F. Schwab, assistant to Senator Coats; Glen E. Tait, assistant to Senator Kempthorne; Mike Montalonga, assistant to Senator Hutchison; Patricia L. Stalnacker, assistant to Senator Santorum; Andrew W. Johnson, assistant to Senator Exon; Richard W. Fieldhouse, assistant to Senator Levin; John P. Stevens, assistant to Senator Glenn; William Owens, assistant to Senator Robb; John F. Lilley, assistant to Senator Lieberman; Mary Weaver Bennett, assistant to Senator Bryan.

## OPENING STATEMENT OF SENATOR STROM THURMOND, CHAIRMAN

Chairman THURMOND. The committee will come to order.

This morning, the Senate Armed Services Committee will receive testimony from Adm. William Owens, the Vice Chairman of the Joint Chiefs of Staff on the current and potential role of the Joint Requirements Oversight Council, or JROC. This body has grown in importance during Admiral Owens' chairmanship as the principal vehicle for insuring jointness in the requirements generation phase of the budget and acquisition process.

This increase in importance is a tribute to Admiral Owens' leadership as well as to the support of JROC, shown by the Chairman of the Joint Chiefs of Staff, General Shalikashvili.

JROC was constituted after enactment of the Goldwater-Nichols Act of 1986. It was formed to allow the Chairman of the Joint Chiefs to advise the Secretary of Defense more effectively on the degree to which defense budget proposals conform to the priorities established by the war fighters.

JROC has also served to insure the joint mission was highlighted as the secretary prepares his defense budget guidelines. Working through the joint war fighting capability process, the JROC has become a significant mechanism for forcing consensus among the services on programming and budgeting issues.

At the urging of the Joint Chiefs of Staff, the Congress included section 905 in the Defense Authorization for fiscal year 1996 formally establishing the JROC in Title 10 of the United States Code.

Today we have asked Admiral Owens to appear on the eve of his retirement to discuss the manner in which the JROC has evolved under his chairmanship and to advise us on any actions this committee should consider to strengthen the JROC process.

We will be discussing the impact that JROC has had on specific program decisions as well as the relationship of the JROC process to the programming and budgeting decisions in the services and the Department of Defense.

Admiral, the committee appreciates your willingness to come before us on the day after your formal retirement ceremony. We are grateful for the leadership you have shown in fulfilling the many duties of your most recent assignment. Your ideas and hard work will have a profound effect on the course of our debate on national security for years to come. Admiral, you may proceed.

#### **STATEMENT OF ADM. WILLIAM A. OWENS, VICE CHAIRMAN, JOINT CHIEFS OF STAFF**

Admiral OWENS. Thank you, Chairman Thurmond. This has been a remarkable adventure for me as the Vice Chairman of the Joint Chiefs, importantly because your committee and you, personally, have taken such a strong leadership role in making for a clear path to do the right things with respect to military requirements. Goldwater-Nichols was enormously important to us. We, many of us in the military, objected to it 10 years ago. It was exactly the right set of legislation. The wisdom of Goldwater-Nichols was profound. The vision of the Hill was enormously important to do the right things.

One of the things that Goldwater-Nichols did was to establish a new process for requirements that I'm going to talk about a little bit this morning. So I thank the committee and I thank you, sir,



for your leadership in helping us to get on the right path in this important area.

I believe strongly that our Nation is faced, our national security structure, our military today is faced with four revolutions. I'm not going to give you a briefing on four revolutions. But it seems apparent to me the conditions are today unlike any we have faced in the last 50 years with respect to the national security structure and the way we prepare ourselves for the future.

The first revolution, dealing with the whole change in the world, I certainly don't have to brief you on. But it's certainly apparent to me that the world has never been so profoundly changed as it is today.

The second revolution is a revolution in the budget with the top line in the DOD budget down by some 45 percent in real terms. This is a time when we must do business in the world's largest business.

The third revolution, a revolution in jointness, is the revolution of Goldwater-Nichols. It is very important that we find our way through this.

Chairman THURMOND. Admiral, if you would wait for just a minute, I have a compelling engagement. I am going to ask Senator Dan Coats to take over at this time.

Thank you so much again for all of your great work.

Admiral OWENS. Thank you, sir.

Senator COATS [presiding]. Pardon me, Admiral, for being late and missing the first part of your statement. You and I have talked before. I am hoping that many of our colleagues will be joining us shortly. I think this is an important hearing and I am glad you are here. I have some more remarks to make, but I don't want to interrupt your presentation.

Admiral OWENS. Thank you, sir. It is a pleasure to be here with you, and, again, I appreciate the support which you personally and the committee have given for our process.

I was just running very briefly through what I believe are these four revolutions that so profoundly affect our national security structure—the first, the change in the world; the second, the change in the budget; the third, the change in jointness fostered by Goldwater-Nichols, a whole cultural revolution in itself inside our military; and, finally, in a very important way, the technologies of America and the revolution in military affairs that they represent.

It seems to me that if it's true to any extent that we are faced with four revolutions, then we must be revolutionary in the way we respond to the revolutions. Your help has allowed us to take some very new paths toward trying to find solutions to address those four revolutions.

I think it is important to look back on where Goldwater-Nichols came from in the sense that I believe 10 years ago, there was a belief that the United States military four stars—the service chiefs, the chairman, now the vice chairman—could not come to consensus on significant changes in the way we structure our forces in roles and missions in the business of military requirements. Having seen what I've seen in the last 2 years, I think that may have been wrong; that, indeed, as Goldwater-Nichols has established in a very visionary way, we probably can find a way to do the right things

for this country together to understand the problems. I have become convinced that, when you understand the problems together, the four star leadership will take profound decisions to help to be a part of the solution, not a part of the problem.

So we can do this together. We have it in us to do it. I think the JROC process in Goldwater-Nichols has given us the tools to allow us to demonstrate that.

I just very briefly would like to run through some of the elements in Goldwater-Nichols, specifically the JROC, which is the embodiment, from my standpoint, of what Goldwater-Nichols was telling us to do with regard to requirements.



*Admiral Owens*

## **JOINT REQUIREMENTS OVERSIGHT COUNCIL**

Briefing to the  
Senate Armed Services Committee



## RESPONSIBILITIES

Goldwater/Nichols & DoD Directive:

Requires CJCS to:

- "Advise SECDEF on prioritization of Requirements ... Identified by CJIHCs"
- "Prepare Net Assessments to Determine the Capabilities of Armed Forces of the United States ..."
- "Assess Military Requirements for Defense Acquisition Programs"
- "Submit to SECDEF Alternative Program Recommendations and Budget Proposals ... to Achieve Greater Conformance with the Priorities Established ..."

And:

Charges Service Departments with responsibility for:

"... effective cooperation and coordination between the Department ... and the other military departments and agencies of the Department of Defense to provide for more effective, efficient, and economical administration and to eliminate duplication."

### CJCS FOCUSED ON JOINT WARFIGHTING REQUIREMENTS

Admiral OWENS. Can you see this, sir?

Senator COATS. No, not as well as I used to be able to see it.

Admiral OWENS. I think you have a copy of this in front of you. Senator COATS. I do.

Admiral OWENS. Great. I'm told it's in the blue folder.

Senator COATS. Yes, we do.

Admiral OWENS. I'm not going to read this chart to you, but it does, very specifically, in Goldwater-Nichols, lay out the responsibility of the Chairman of the Joint Chiefs. It also, again, reiterates the responsibility, the Title 10 responsibility, of the service departments.

If I could just ask you, would you read through those two columns, because I think it's enormously important that we get in our mind what the service chiefs are mandated to do and what the Chairman of the Joint Chiefs of Staff is mandated to do by this legislation.

What I have focused on in JROC is the last item in the left column, the one that says: Submit to the Secretary of Defense alternative program recommendations and budget proposals.

I think that the authors of Goldwater-Nichols had in mind that the Chairman of the Joint Chiefs of Staff should look not only at the new systems that are being bought but the entire range of systems and concepts that make up our military capability and to provide recommendations in budget and program form to the Secretary of Defense for his decision.

Someone said to me when I came to this job and I asked what was important in this job: It's the budget, stupid. In my view, in the Pentagon, it truly is the budget that is very important in terms of our future capability.

So we've taken very seriously that last item, to submit alternative programs from the four staff military leadership to the Secretary of Defense.

When you think of the profound change that represents inside the Department of Defense, I think it's important. It says that you can get budget recommendations not only from the individual services through the assistant secretaries of service, through the service secretaries, through the assistant secretaries of defense, through the under secretaries of defense, through the Deputy Secretary of Defense to the Secretary, you can also get them directly from the four star warfighters, the CINCs, the Joint Chiefs, the Chairman, directly to the Secretary of Defense. So, the Secretary can include those budget recommendations from the Chairman and the four stars as he makes up his mind what he will do with the programs.

Secretary Perry has welcomed that input, has found it useful, I believe, and, in general, has implemented the recommendations that we have made from the four star leadership.



## *Defense Authorization Bill of FY 96*

### **Amends Chapter 7 of title 10, United States Code:**

- The JROC has the mission to:
  - "...assist CJCS in identifying and assessing the priority of joint military requirements (including existing systems and equipment) to meet the national military strategy."
  - "...assist the Chairman in considering alternatives to any acquisition program...by evaluating cost, schedule, and performance criteria of the program and of the identified alternatives."
  - "...assist the Chairman in assigning joint priority among existing and future programs..."
- Functions of CJCS as Chairman of the JROC may be delegated to the VCJCS

Admiral OWENS. You were, again, very helpful to us this last year in the authorization bill in giving us some language about the JROC, and basically here to formalize the Joint Requirements Oversight Council as an element of Goldwater-Nichols. I'm not going to read this one to you again, but here, the function of the Joint Requirements Oversight Council, working together with the CINCs and the services, to support the Chairman in his recommendations for an input to the Secretary of Defense has been made much more possible through your legislation. I appreciate it very much. I think it's the right thing to have done and we thank you for your help on this.



## Joint Warfighting Capability Assessment

- Inclusive Examination of Joint Warfighting Areas
- Comprehensive View of Intersecting Capabilities

Participants	Joint Staff	Services	OSD	CINCS	DoD Agencies	Others
Sponsors						
J8						
J8						
J4						
J8						
J5						
J6						
J6/J3						
J2						
J5						
J1/J3/J7						

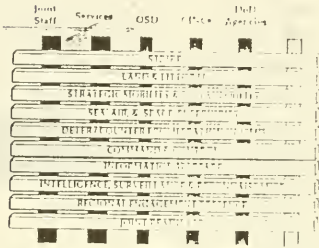
**JROC**

Admiral OWENS. In our efforts to understand the United States military capability, we have undertaken joint warfare capability assessments (JWCAs). There is no formal basis for these. We asserted the need to do them. There are 10 of them. They are listed here.

It is a commitment to ourselves that, if we are going to understand the United States military capabilities, we'd better understand in terms of the details of those systems. So an enormous amount of time has been spent in the Joint Staff and the services to do an assessment in these various 10 areas, from strike to littoral warfare, to intelligence surveillance reconnaissance, and to regional engagement, and what does it mean in specific terms. What are the technologies, some of the boring stuff that we've never spent time on before? What frequency does the radio transmit on? What's the software protocol to get the information from the satellite to the airplane to the troop on the ground, et cetera.

So we've spent an enormous amount of time trying to understand the technical elements of these as the four staff leadership because, if you're going to respond to the changes that I attempted to describe earlier, the four revolutions, then we'd better understand the details so we can make the recommendations for the appropriate changes. The JWCAs, the joint warfare capabilities, are the media through which we try to understand in some detail what we do as a U.S. military.

## The JWCA Construct



- Focused on future joint warfighting
- Comprehensive in scope
- Emphasis on capabilities, not systems or platforms
- Today is point of departure for path to tomorrow
- Each have their own context
- Assessment framework easier in some than others
- Brings knowledge to Four Star military forum

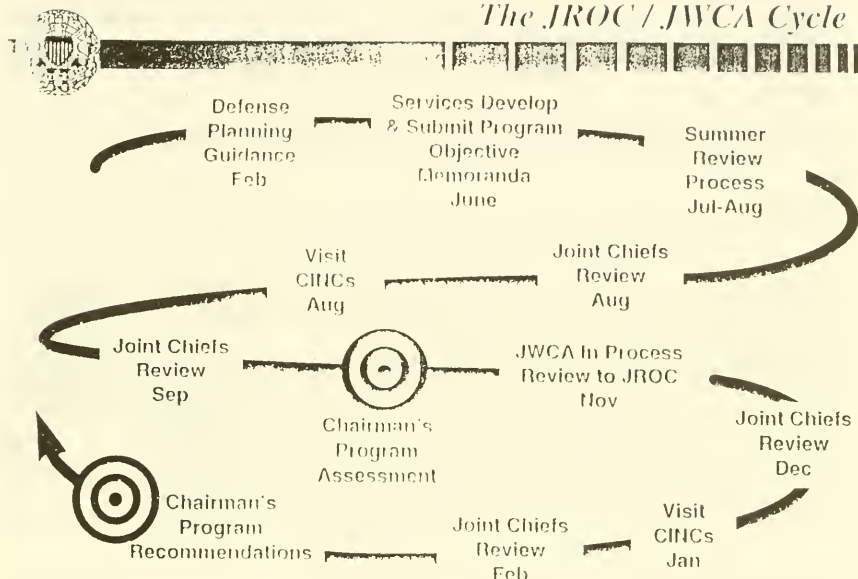


Admiral OWENS. In all of this, the emphasis is on future joint war fighting. Our CINCs do a remarkable job out there today, in the present in the Bosnias, in the Rwandas, et cetera. But it is very important, in my view, that we focus on the future. It's very easy to get trapped in the present, especially in this town, it seems to me. For us to genuinely say where are we putting the hundreds of billions of dollars in the future and what does it mean to us and how do we understand how it comes together is an enormously important endeavor.

Few people know, few people understand, few people have spent the time to look across the spectrum of American war fighting capabilities and technologies to be able to talk to you about this. I hope that the JROC process has helped us to come a little further along in understanding those technologies across our CINCs and services and that we're a little bit better able now to address some of those recommendations as we look to the future.

We are trying to be comprehensive. The focus here is the JROC, but the JWCA's are the basis. It's the form, it's the substance, it's the subject area of the JROC, so that we can understand where we're trying to go with the military in the future.

## The JROC / JWCA Cycle



Admiral OWENS. This is the cycle. I would just like to draw your attention to the two bullseyes. As we go through this process each year, there are two bullseyes that we shoot for. The first is the Chairman's program assessment, that is, the Chairman's review using these JWCA's and the JROC process of the budget as it is submitted in the summer—that is, July/August; and, finally, in the February timeframe the Chairman's program recommendations. This is the input that the Chairman makes to the Secretary concerning the defense planning guidance.

So we try to consolidate our views about what the system of DOD should be directed to do in the defense planning guidance in the Chairman's program recommendations. So those are the two focal points that we try to deliver to, and this has worked for the last 2 years. We've learned a lot about this and I think we are a lot better off in terms of our ability to help the Secretary of Defense through our recommendations.

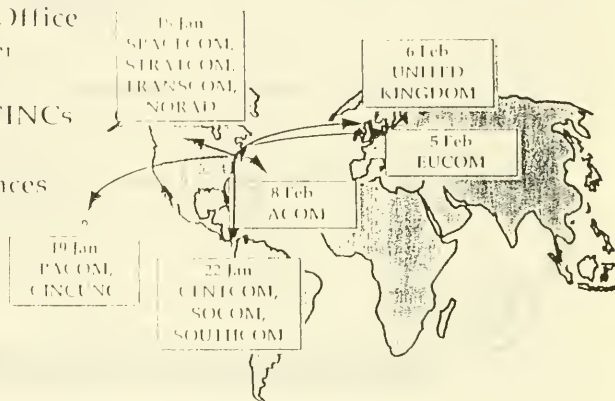
## • JROC Visits to CINCs Key Element of the Process

### • CINC Liaison Office

- CINC Newsletter

### • DJ-8 Visits to CINCs

### • CINC Conferences



Admiral OWENS. This is just to say that we genuinely believe that this interface with the CINCs is so very important; that unless you're out there, as you all know, having visited our CINCs a lot yourselves, you just don't understand the tenor, the flavor, the aura of what's going on and how different it is from one CINCdom to another.

If you go to Southwest Asia, obviously it's a very different feeling, a very different tenseness than it may be in USACOM today. So, it's very important that we have that quality time at the four star level—not the staff level; they are included—but that the four stars ourselves are involved.

So twice a year we get on an airplane for what has been dubbed the "trip from hell" to go and visit each of the CINCs on their turf at the four star level—the five of us in the JROC together with the CINCs, to talk about what's going on in their theater, but also to tell them what we think is necessary for the future so that we can have those discussions, help to let them know where we are and let them have an input about the future because CINCs have, in general, not been focused on where we're going 15 years from now. They've been focused on where we are today.

Their inputs have been very valuable to us in terms of trying to understand what's important and where the balances are to make for the most effective military for our country.

So you see that we've been to each of the 10 CINCs. But I draw your attention to the visit to the United Kingdom. This last year, we, for the first time, went to visit our counterparts in the U.K., spent a day with them, with the service chiefs in the U.K. and the Chief of Defense staff, talking about the coalition and how these technologies fit together with them. I think that's an initiative that



we should continue to follow up on with our closest allies, to let them know where American technology is going and to let us know where they are planning to go in their future because it's going to be important for coalition warfare in the future.

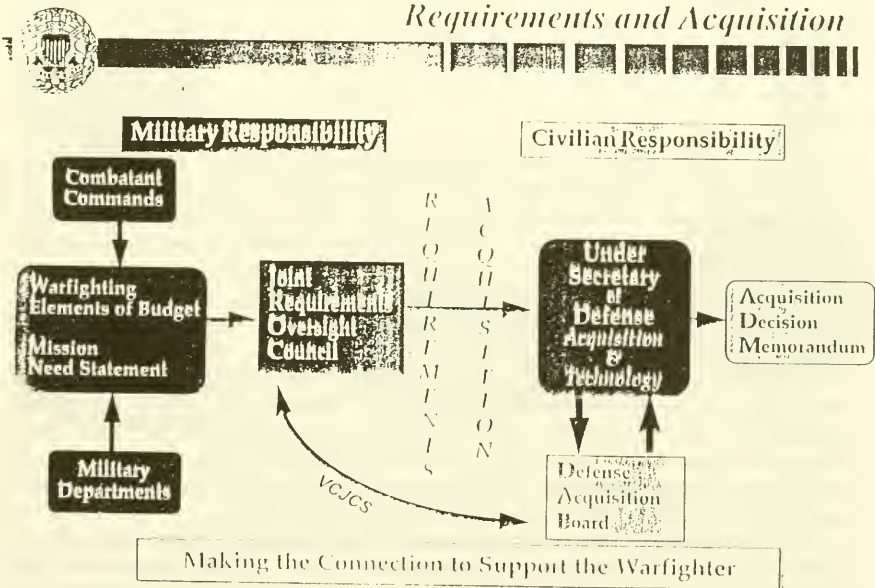
Senator NUNN. Admiral, if I could just ask a question on that, in terms of us, in terms of the way they put that together and their look at the future, are we way ahead of them or are they looking in similar terms?

Admiral OWENS. Senator, I think that, in general, we are very close with the British. Because of our naturally close relationship, there are a lot of similarities in the way we do things.

I believe that no country has anywhere near the ability that I have seen in America and American industry and our system to build a capability for a military in the future. I would suggest that we might ask them how they feel about that. But we are genuinely on the front edge, and I think it's very important that we continue to stay together with these close allies because they want to be with us. Of course, I think we want to be with them.

So I find us having had wonderful discussions with them on some of the technologies and where we see ourselves going, and they very much want to stay together with us on that.

## Requirements and Acquisition



Admiral OWENS. This is just to say that the connection between requirements and acquisition is very important. The military responsibility to do the best we can to recommend systems for our Secretary of Defense's consideration and then the relationship with the civilian side, the acquisition side, to make sure those requirements come to life in the best possible way. There are a lot of tradeoffs between the two, as you know, and the JROC has been involved in trying to facilitate this, always in support of that young

kid in the battlefield, who is the final determinant of how successful we have been.



## *Payoffs from Past and Current Investments*

### ISR

AWACS  
RIVE1 JOINT  
EP-3E  
JSTARS  
ESP-3A  
SBIR  
TIER 2 (+)  
TIER 3 (-)  
U-2  
TARPS/ATARS  
MH  
Hunter  
REMBAS  
Magic Lantern  
ISAR  
NVG  
FDS  
Etc.

### C4I

CCCS  
MHSAR  
PSPS  
DISC  
SABLE  
CHITAW  
HHS  
EADH I  
TRAP  
TACSAI  
JWICS  
MIPS  
SLIP  
SONET  
INCS  
Link 16  
DNIS  
JDDI  
Etc.

### Precision Force

SEW  
JSOW  
TLAM (b1k III)  
ATACMS/BAT  
THAAD  
CALCM  
JDAM  
Have Nap  
AGM-130  
HARM  
TLAM (b1k IV)  
A Hawk  
Hellfire II  
Javelin  
LOSAI  
Long Bow  
SADARM  
SLAM  
Etc.

Admiral OWENS. I'm not going to give you a test on these three columns, but I want to tell you how strongly I feel that this is the promise for our military for the future. It is the smart front edge of warfare. Few of us can tell you about these systems. They are just acronyms. They are, in large part, future based rather than present based, but they are already in the budget. They are already being paid for. Individual decisions have been made to buy these things.

So the first column, ISR, is Intelligence, Surveillance, and Reconnaissance. The second column is C4I, which is the ability to communicate. It's Command and Control communications. The third column is precision force, the ability of our weapons—the weapons, not the weapon platforms but the weapons—to be very precise and to deliver a lethal payload where we want it to go.

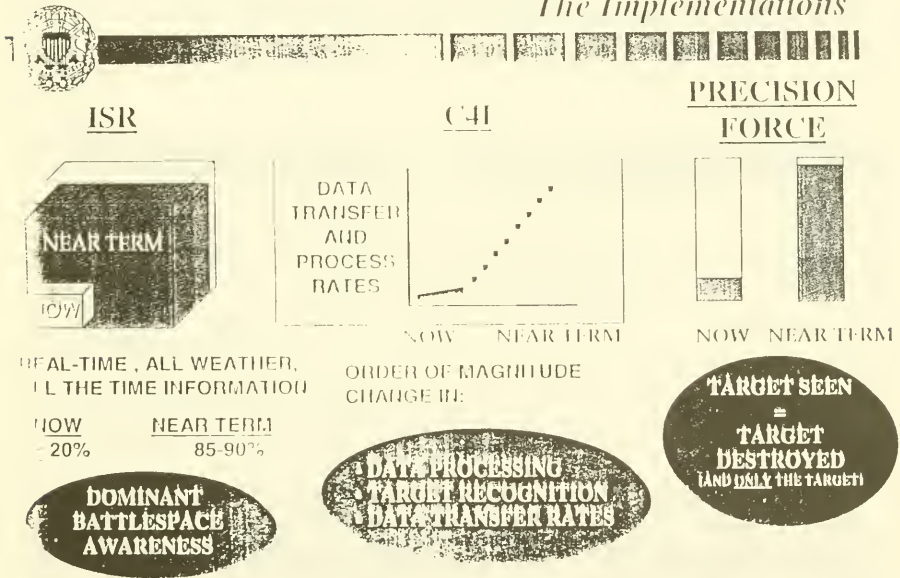
So the first column says you see a battlefield; the second column says you can deliver the information—I think Bill Gates is right that infinite bandwidth on demand is pretty close—to a soldier, or a sailor, or airman or marine who has precision weapons that we didn't think possible 10 years ago. It's the smart front edge of warfare. We need to educate our young people about these systems. We need to change our culture to incorporate these kinds of considerations, and we need to weigh these kinds of capabilities against the other kinds of things we love to talk about, our submarines, our aircraft, and our tanks.

But I would say to you that I believe if you put the sensors and communications in precision weapons on one hand and the plat-

forms on the other hand, that the balance is shifting and that the smart front edge of warfare is so much more important to American military capability in the future that we must not simply shelve it and not be able to tell you, as one stars, or two stars, or three stars, what these systems are. If you can't describe what these systems are, I say to our capstone course, our new one stars and two stars, if you can't describe what these systems are in general, then you can't argue with me about whether there's a revolution in military affairs. You can't argue with me whether the smart front edge of warfare is real or not.

So I think it's important that we all focus on the smart stuff that is coming. We bought them individually. Somehow God has looked out for us because there is no over-arching plan to put all this stuff together in a coherent package. Yet, when you look at this stuff together, it is a remarkable capability.

### *The Implementations*



Admiral OWENS. On this next chart, the capability is, again, the three columns—ISR, Intelligence, Surveillance, Reconnaissance; communications; and precision force. This is because the ISR allows you to see a very large battlefield. It says you might be able in the next 3 to 5 years to see a battlefield the size of Iraq or North Korea with enormous credibility, enormous fidelity, 24 hours a day, real-time, all-weather. If you can see that battlefield, then the communications revolution should give us the bandwidth to transmit the information to the war fighter. If the war fighter can see the battlefield and has the information, then he has remarkable new weapons that will make a determinant difference in the battlefield.

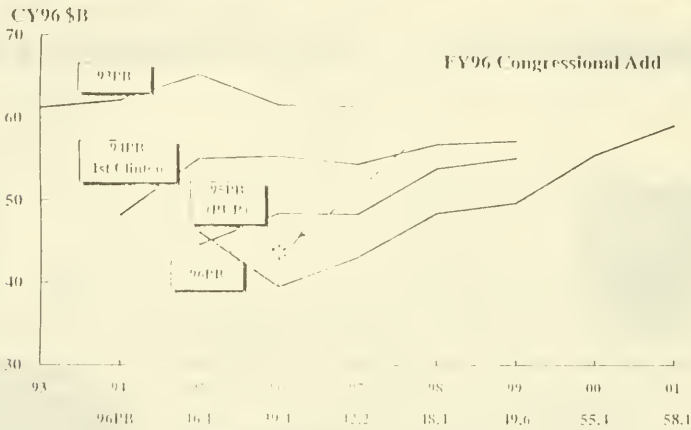
This is not to say that the troops aren't important. God knows they are enormously important in all of this as we do these kinds of missions around the world. But we should not miss the fact that

this message is being given to us by American industry and our technologies and it's revolutionary, I believe. It is the basis of the revolution in military affairs.

If you see the battlefield, the large battlefield, with that kind of fidelity, if you can communicate it, and if the enemy can not, then you have dominant battlefield awareness and you win. That's important. You'll win not only in the battle like Desert Storm, but you'll win in Rwanda—where are the refugees, how do you feed them, where do you put the security forces? It's not just a force on force war fighting equation. It's what America gives to our military in terms of our technologies. They're revolutionary, very important, and we've got to try to understand them better.



## Procurement Trends



Admiral OWENS. I want to talk just a little bit about procurement because I believe it is the crisis in the defense budget today. I think Secretary Perry is clearly recognizing this. We are the most ready, the best military we've ever had. But procurement is way down. Procurement has gone from \$123 billion, I think, in 1985 to about \$39 billion in 1996. It's down about 70 percent.

This means the industrial base is down 70 percent. It means the ability to recapitalize America's military is down 70 percent, and, unless we do something about this recapitalization problem, the United States military will not be recapitalized 15 years from now and we'll look back on this and say why didn't we do something to fix this problem.

It is an easy thing to take money out of procurement, and this chart shows the story. I'm not pointing a finger at this administration. We, the military, have been involved in these decisions. It just works out this way.

But the fact is that, because the top line has come down, as it has, the decisions have had to be taken that have resulted in procurement doing this. I think we need to just get real focused on it



now, not with an eye to asking you for a lot more money. I don't think that's the point. Indeed, I am advocate of not giving us more money. But we must manage this department—and I mean we, we, the military, we the civilian leadership, and I hope, sir, you and the Congress—to help us get money into recapitalization for our military. There are business management ways of helping on this, and I'd be happy to talk about that if you wish.

But here you can see that in 1993, the President's budget had for procurement \$62 billion. It also said that in 1994 procurement would be up here at \$63 billion. Of course, what really happened was that it went to \$48 billion. But we all thought it was going to go up. In 1995, it said it was going to go up to \$55 billion. But, in fact, what really happened was \$46 billion. But it promised it would go up.

And in 1996, we're now down to \$39 billion and we're promising that it will go up. We've got to stop promising ourselves and start doing something about this procurement issue which I think is the basis of our ability to recapitalize America's military, not just the ships and tanks and airplanes, but also these remarkable technologies.



### WARFIGHTING HEADLINES:

- Dominant Battlefield Awareness
- Bandwidth
- PGM Efficiency
- The System of Systems
- Recapitalization
- Doing Business in World's Largest Business
- Troops & Leaders: The Best!

Keeping Faith with Them!

Admiral OWENS. Here are some war fighting headlines. I think they are very important. Dominant battlefield awareness is possible with our technology, as I described. We will have the bandwidth to do this. This is hard to believe for those of us who, for 33 years, have been trying to talk to one another on a 1.2 kilobyte per second telephone and have been unable to do so. But you are going to be able to have this kind of bandwidth.

I believe it's absolutely true that we will—Gates is right—we will have that bandwidth to do this.

The efficiency of precision guided munitions is, I believe, more and more apparent to us. Look at the bombing campaign in Bosnia and how much more precise, and how much more surgical, and how little collateral damage there was, as compared to Desert Storm, for example. Just in 5 years we've come so far. The impetus is very strong here to become even better.

But all of this, the system of systems tying this stuff together, is something that America's military does better than anyone else. This integration of capabilities sensor to shooter—how you see something, transmit information and put a weapon on target—we do that better than any other country. We should salute ourselves. I can tell you, having been around now a lot of time, to talk to industry, to talk to other militaries and to see ourselves, we do that much better than anyone else and we should now capitalize more and more on that system of systems.

Secretary Perry wrote an article about 10 years ago that I found, talking about the importance of viewing our capability in that fashion.

Recapitalization I have talked about. I think it's enormously important. We must start to do business in this world's largest business in different ways. We must privatize. We must genuinely get legislation in my view to allow us to do that. We must continue to foster a process that allows us to take vertical cuts on the lesser systems, the systems that aren't as contributing as other systems. Take them all out.

We've seen a little bit of that in the last couple of years with our efforts in the JROC to decommission all the F-111s, all the A-6s, four classes of nuclear submarines, the RF4Gs, et cetera, et cetera—many different vertical cuts. I think those didn't happen in years past, and we must continue the thrust not to take percentage cuts off the tops of all systems, but to take vertical cuts of the less capable systems. Finally, we must keep faith with those wonderful troops and their leaders and realized how important that continues to be in this world we face.



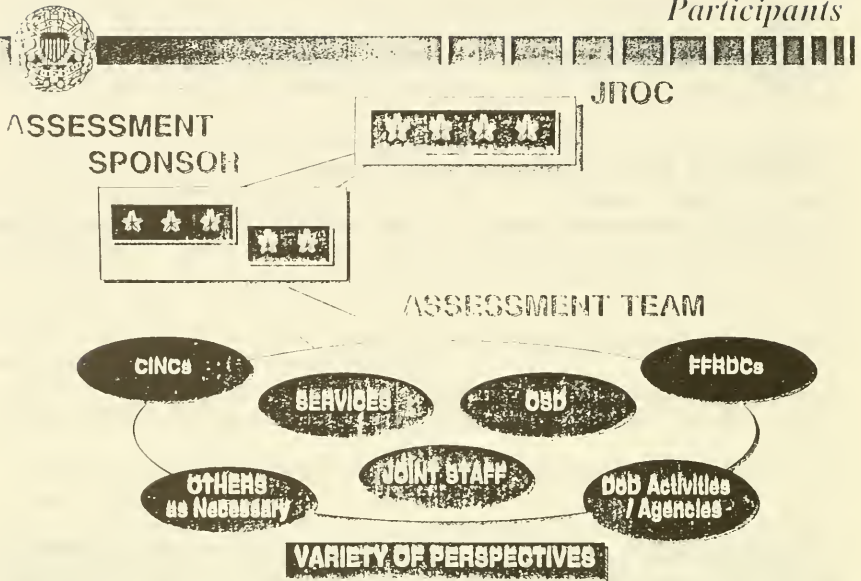
We live in Revolutionary Times!

Must foster revolutionary solutions from the Top!

- Right People ( 4 Stars )
- Right Subjects ( Warfighting... JWCA's)
- Right Amount of Time ( 10 Hrs/Wk )

Admiral OWENS. If we live in revolutionary times, as I describe, then I think we have to have a little revolution inside the Department of Defense. Secretary Perry I think is doing a remarkable job in bringing a lot of this stuff to life. But my view of how you bring revolutionary change into a bureaucracy like ours is that there are three critical factors. It has to come from the top. You can't have a revolution from the bureaucracy. It just does not happen. We are compromising. We're trying to find mid-positions, and now is not a time to compromise. We must have strong decisions and we must have the courage to undertake the right kinds of directions.

So we have to have the right people involved, the four stars, talking about the right kinds of things—that is, the joint war fighting capability assessments that I described to you . Finally, we have to devote our time to it. Most of us have schedules like yours I think, that run 15 minutes at a time throughout the day. Today, the JROC is spending 10 hours a week on these kinds of details of war fighting systems. I think it's what America wants us to be doing and I think the legislation has helped us enormously in bringing that kind of process to bear, to do the right thing for our country.

*Participants*

Admiral OWENS. Finally, I just think this whole direction that you have been very much a part of is so important. The JROC, the ability to look at our future requirements in new ways, and Goldwater-Nichols are so enormously important to do the right things for this country. It's so difficult now, so revolutionary because of the factors that we face. So, sir, I appreciate your time in allowing me to just say a few words about JROC and where we have been.

I am happy to answer any questions you might have.

Senator COATS. Admiral, thank you very much. Because we don't have the same punctuality as the services, all of us, including myself, wandered in here a little bit late. But this is an extraordinary important hearing in my opinion because we are clearly facing some difficult challenges in terms of allocating our resources and establishing our priorities for the future. These are budget driven, for the most part.

I think anybody who studied any war fighting history at all understands that usually you're fighting the next war with the last war's mentality and technology, and that's a prescription for defeat.

So your work with JROC has been extraordinary. With congratulations for 33 outstanding years of service but regret that you'll be leaving the Navy, we are pleased that you are spending what I believe is your last or next to last day, next to last official day, with us explaining to our colleagues the importance of this process.

It is new to many of us. It's new to me. Senator Nunn was instrumental in making all of this happen.

I just think it's important that our committee understand the extraordinary strides that JROC has taken under your leadership and I really commend you for the energy, the effort, and the intellect and all that you have brought to the process.



I have had the opportunity to spend a little bit of time talking to not only you but to some of the chiefs and others down through the ranks. Clearly, this concept is becoming much more integrated throughout the services. I think that that's very, very important.

So I commend you for your leadership and thank you and know that we will miss you greatly. But I certainly wish you nothing but success in your future endeavors.

I'd like to turn to Senator Nunn. I have a whole series of questions, but I'd like to turn to Senator Nunn for whatever statement he has and whatever questions he has. I know that with four of us here, we can have a fairly open round of discussion. I don't think it has to be just narrowly prescribed here. So I would say let's feel free to open this up, give everybody a chance to ask his or her questions, but feel free to interrupt at a point or whenever it is appropriate.

Senator Nunn.

Senator NUNN. Thank you, Mr. Chairman. I know that you and I both wrote letters to Chairman Thurmond asking for this kind of hearing because we have come to the same conclusion, and that is what Admiral Owens is doing, what the JROC are doing, what the service vice chiefs are doing and the CINCs are doing in working in this process is, indeed, a revolution in military procurement and acquisition that is at least equal to what has happened on the operational side. Both of these flowed from Goldwater-Nichols. The first, on the operational side, properly flowed first.

This effort here is truly a revolution and it is led by one of the most capable people we've ever had in uniform, by Admiral Owens. I think a great deal of him. We're going to miss him very much.

I hope that you will continue to follow this process and to give us your guidance, even from your new position, because this one is too important not to have constant attention. Very few people have focused on it as we should have here on Capitol Hill.

So I congratulate you and I think that truly we are going to see a revolution in warfare based on awareness, based on being able to convey that information to the right people at the right time, with the right systems, and based on the smart weapons that are going to be able to follow through with that.

It is a quantum leap in terms of capability. As you have said with your charts, this is technology that is going to be here in 2 or 3 years. I mean, this is not something we're talking about in 10 or 15 years from now. You're talking about turn of the century counter-capabilities, if I'm reading the chart correctly.

Is that right?

Admiral OWENS. Yes, sir. I think that's exactly right.

Senator NUNN. I'd like to ask you how we deal with this procurement gap. You mentioned that you weren't asking for more money. You didn't think more money was called for. If we've got a big procurement gap and we're not going to get more money, I think whether you call for it or not, you're right—we're not going to get it in this budget environment we're in now and probably will be in for the next 5 years. If you don't have more money, how are you going to fill the gap? Are you going to be able to find acquisition and support costs and other costs that you can bring down sufficient to be able to boost this procurement account or are we going

to be able to get what we need out of the level line that you showed we have fallen to?

Admiral OWENS. Senator, I think it is a question of time. I think that there is not a single solution and I believe we have to continue to work at the efficiencies of the \$10 million or \$20 million programs. But I also think there are several major initiatives that would be very helpful to allowing us to realize the kinds of savings that might find that \$15 billion or \$20 billion to get it into procurement from inside the budget.

Privatization is something I have had a chance to study over the last couple of years. Of course, there's a myth about it. There's also a great truth about privatization. The Air Force, for example, has a number of their training bases that are privatized today. So we have a lot of experience in the Air Force with privatized bases, a civilian company running the base for them. The Navy has its Trident bases privatized, essentially, and I think the Army has a base in the Pacific that is privatized. So we know the business size of privatized bases, and my belief is that you save 20 percent to 25 percent when you privatize a whole base and that you run it more efficiently than we in the military run it, in general, when you think of the way that we run our bases. I would be glad to talk to you about that. We try very hard, but we don't do as well as a private contractor would.

If you privatized half of the military bases in the U.S. Department of Defense, my belief is that you could save billions per year on that initiative. But A-76 and many of the pieces of legislation that don't allow that to be done easily will require it to be pushed out into the next century.

The sooner we can get to more realistic privatization on a grand scale, not just lawn cutting or security services, but on a grand scale, the better we'll be.

I think another area is the area of substitution of smart capabilities of the technologies that have come out of American industry. For example, we have been very pleased with the Predator unmanned aerial vehicle in Bosnia. We have about 800 hours of flight time of Predator over Bosnia. It flies without a man in it. It flies at 30,000 feet, looks down on a wide area of the battlefield, and immediately relays via commercial satellite. We rent the time. We find it much cheaper to do that, to rent the time from a commercial telephone company than to provide our own satellite. It relays real time video of what it's seeing.

That kind of capability is enormously important by itself. But it also could very easily in the future replace a number of manned aircraft that do similar kinds of things.

The Predator costs less than \$2 million a copy—emphasize the "million" part. It's less than \$2 million a copy, and this kind of technology gives us enormous knowledge.

In Bosnia, you will recall when Scott O'Grady was shot down, we became very aware of the SA-6, the surface to air missile launcher that is mobile. It drives down a road.

With Predator at 30,000 feet, you could watch an SA-6 drive down the road. You could see it go into the woods and you could highlight its position. You could put your cursor on your screen

over the position and it would give you the very precise latitude and longitude of that missile launcher.

That kind of capability that is presently coming in part from manned aircraft might be a substitution to the tune of hundreds of millions a year in the future. I would be glad to go into more details on that. But that kind of technology by itself could become very important.

If you look at where commercial communications technology is going, you have to get really excited. We have to, in the military, understand it. The fiber revolution is here. In 1998, 98 percent of the world's cities over 100,000 population will be interconnected with redundant fiber, and when that happens, the data rate around the world goes up by 10,000 times, by 10,000 times more data than we have today.

This means that you can transmit a lot of stuff around the world.

There is a cellular phone revolution that will happen, I believe in about 1997, through systems such as Odyssey, or Iridium, or Global Star, allowing any one of us creatures on the face of the earth to talk to any other creature anywhere. We in the military can take good advantage of that kind of system.

If you allow yourself to look 15 years in the future and ask the question can you substitute a large part of military procured communications capability with off the shelf commercial communications capability—and I believe the answer to that, by the way, is yes—if you can, then you might save \$5 billion to \$10 billion a year in the year 2005.

So I think those are three examples of where we might find big savings. But I think it's an assembly of a variety of things, and we must get on with a commitment to finding those kinds of savings and understanding what we're doing while we're going through it.

Senator NUNN. Just one other question, Mr. Chairman, and then I will rotate around.

Admiral Owens, there is a provision in this year's bill that we just passed, which I sponsored, which I call a defense modernization account. The services would be able to retain savings achieved from efficiencies both in acquisition and O&M and use those savings in the procurement account for modernization.

I have come to the conclusion that there is insufficient incentive to save service by service. This, I hope, will begin to work in that direction.

Have you taken a look at that? Have you had a chance to evaluate it?

Admiral OWENS. Senator Nunn, we have indeed. I am completely in agreement with you. I think having lived inside the Pentagon bureaucracy and having been something of a budget guy myself for many years, I can just tell you that what you have just said is right on the mark.

We have to find ways to incentivize the services to be part of the solution and not a part of the problem. The tendency is to try to preserve all of our marbles, service by service when, in fact, if there is a way to allow the service chiefs to find their own savings and keep those savings to do other things that they need to do more, then I think it is really a big thing for the efficiency of proceeding along the ways that we have talked about here this morning.



Senator NUNN. Thank you, Mr. Chairman.

Senator COATS. Admiral, correct me if I'm wrong here, and I hope you can be candid on this. It strikes me that the integration of the understanding of where we're trying to go in this revolutionary time, with revolutionary new techniques and processes has been better understood and more accepted within the services than perhaps among the civilian leadership or the Congressional leadership.

Is that a correct assessment?

Admiral OWENS. Senator Coats, I think we have found enormous support from Secretary Perry on this effort. He genuinely is very interested in this personally and has been very supportive of our efforts here.

Likewise, with Paul Kaminsky, our Under Secretary for A&T, and with Emmett Page, the assistant Secretary for C<sup>3</sup>I, I really think it has been a partnership.

What I have found about this stuff, though, this stuff of technology, is unless you really devote yourself to understanding it, you're going to be marginalized. In our bureaucracy, there have been few who are able to take the time, for whatever reason—I won't judge whether they should or should not; that's very difficult to do—but I really believe that it's very important that we understand this stuff. The chart I showed with the three columns of unrecognizable things—we must take the time to understand system by system and then how they fit together. Only when you do that, as has happened to me in the last 2 years, not in completeness but in part, at least, do you start to see that, my God, it's true, technology can, if we have the vision, do this for us.

So it's easy to say we should take more time to understand, and I will say that we should take more time to understand the smart front edge of war fighting because it's so enormously revolutionary and important. On the other hand, I know there are a lot of demands on people's times.

Frankly, it's very hard to find people who you can talk to in detail about these systems, as a whole. You can find lots of pockets where you can talk to little blocks of people about particular areas. But it's important that we see it as a whole. More time is necessary, I think, on the part of all of us—the military, certainly, the civilian leadership, and perhaps here on the Hill, as well.

Senator COATS. Well, putting it in a macro sense—and I can really only speak for myself and not for others—I think at least I have had a perception that the review process and the recommendation process at the Department of Defense has been an internal war among the services to see whose priorities gain the Chairman's favor and that the recommendations to us represent the final score in that annual war. Then we have our own war here within the Congress.

What has opened my eyes, I think, in just the past few months is the incredible thoroughness of the process with which you are now evaluating systems—weapons, how they interact with the budget, how you're preparing for the future. I'm not sure that's fully understood—and also when we make the decisions in terms of what the final budget looks like.

So I guess my question is, to the extent you feel comfortable answering it, is this. Is what Congress is doing advancing or slowing down things? Are we constructive in the process of where you think we ought to go, or are there steps along the way, whether it's Congress or whatever, that basically you're having to struggle against?

Admiral OWENS. Well, Senator, there are some things that have bothered me about our interface with you. I would like to have come to testify on what we in the JROC have done as part of the budget process.

You called the four service chiefs, you called the CINCs, but you never called the JROC, and you don't call the Vice Chairman, who Goldwater-Nichols made senior to the four service chiefs.

I have not quite understood why that is, but I have requested several time. Your staff is busy, but I do believe it's important now that we can contribute, I believe, some insights into some of these areas that you've asked for—the JROC, the Vice Chairman, to come and testify on budget priorities. I think that might be helpful to you as we look at the future capabilities that we represent.

On the other hand, sir, I would say that you have been enormously helpful. Your staff is very, very forthcoming in terms of trying to help us with legislation, in trying to help us to find ways through some of the technologies that we're trying to put in place and to find legislative solutions and to facilitate the improvement of Goldwater-Nichols, like you've done with the JROC process this last year or so.

I am certainly not here to criticize. I know you're holding this hearing to be constructively helpful in this one area. I think it would be useful to you to hear a little bit more on our testimony and maybe also to establish some constructs where we could work together with your staff on especially some of these smart front-end technologies that we are able to understand a little better.

Senator COATS. I have one last question.

Had you had that opportunity to testify, do you believe that it would have minimally, moderately, or substantially altered maybe not our final conclusions but at least the input into making those conclusions. Would we have been operating with a different set of assumptions or facts in terms of funding priorities?

Admiral OWENS. Sir, I think you would have seen something that is very important that is happening right now, and that is that we in the JROC are truly a band of brothers; that you would find that the four services, the four vice chiefs and myself are acting as non-partisan players. I really believe that's true.

It's been a matter of some excitement for me that, when you spend this quantity of time together—10 hours every week—talking about this stuff, you start to understand in very profound ways what's best for the country and you will be willing perhaps even to give up some of your own service money in order to do the right thing for the country. None of these four stars wants to do the wrong thing. It's just a matter of educating ourselves so that we can do the right thing.

So I think you would have seen that spirit of coming together and I think you would see that with the CINCs also, because we spend 20 hours every year with each of the commanders in chief,

that they feel plugged into the system and that their requirements are being represented.

So I think you would have seen that. As to whether we would have had profound messages for you, I think that the smart front edge of warfare is enormously important. I would have put a little bit more emphasis on that area. You have done very well with us in this area and your staff has worked well in that area with us.

I think, in general, we're okay. We're able to work in the staff to staff relationships. But I think it's also important to engage you, our leaders, on some of these cross-service joint technologies that make a big difference for our country, and I'm not sure you see that from the services, individually from the service chiefs. Although the six of us on the joint chiefs are also quite close, we don't spend the amount of time that the JROC spends.

Senator COATS. Thank you.

We didn't keep a list this morning, but I think Senator Santorum was next on the list.

Senator SANTORUM. Thank you, Mr. Chairman.

I want also to commend you for your testimony and for the work that you're doing. In fact, that sort of leads me to my first question.

I think you're right in describing that you have a good team now and that you're doing the job that you set out to do. But there have been criticisms in the past. The "Washington Post" said in August of 1994 that JROC had been a largely dormant, bureaucratic entity until your leadership changed that around. That is to commend you.

But it also begs the question. Now that you're leadership is at an end, what are the chances of this going back to a largely dormant, bureaucratic entity? What assurances do we have in the existing law that the personalities that now make this system work, once those personalities are removed from that system will do it?

You have heightened my question because you have talked about the importance of your understanding of technology and the acquisition process and the lack of the number of people in the services who have that understanding and to contribute to this mission.

So it leaves me with a little bit of an uncertainty as to where we go from here, not just with your leaving but with subsequent administrations on the OSD side and the interest in the cooperative arrangement that you have now.

Admiral OWENS. Senator, thanks for the comments.

I'm now convinced—I would not have been, I think, a year ago, but I am now convinced—that the process is part of our system. I say this because I think it's an ingrained part of where we, the service chiefs, we, the Joint Chiefs, are because we've spent a lot of time together talking about these recommendations of the JROC. In that sense, General Shalikashvili, for whom I have enormous respect, is very keen on keeping this going. He has made it the case that the Joint Chiefs of Staff are the board of directors over the JROC.

Goldwater-Nichols was wise in this regard. It made the vice chairman senior to the service chiefs. On the other hand, it made him also the chairman of the JROC. So, he can bring together this insight to the extent we can develop it to the Joint Chiefs. We spent a lot of time in the joint chiefs talking about that.



I think the Joint Chiefs and the JROC are convinced that we must do this for doing what we can for our country and that it's very important that we stay together.

So General Shalikashvili is keenly interested in keeping it going. I think Secretary Perry is keenly interested, and you all have been very helpful in terms of the legislation that you've helped us to put in place this last year to bring some formality to the JROC process. I think it will be interesting to continue to follow it and maybe help us more with legislation as we go through the next year or two timeframe to perhaps put some more legislation in place.

But I'm convinced that this will stay. Joe Ralston, my successor, is a remarkably capable and good man and I think he is committed to continuing this process as well.

Senator SANTORUM. My next question goes to how well a job you're doing and what you're doing. It, again, sort of begs the question. If you're doing such a good job in going through the acquisition budget and being able to evaluate that area and set priorities that more efficiently accomplish our mission, what are the prospects of your mission being expanded to look at a greater area of the defense budget to accomplish that same mission?

Admiral OWENS. I know exactly what you're saying, I think. We have limited, because Goldwater-Nichols limits our spectrum to just the war fighting side, the systems that do war fighting, and that, of course, is significant in our budget, but it's not everything.

I'm not sure that the JROC is the right process, but I do believe that a similar organization designed to spend time, to spend the quality time to bring the right kind of people to interface with and to try to come to conclusions about how to run this world's largest business in its entirety is important. It is so difficult. It is so complex. It is so huge and it's very, very difficult. But it takes enormous time to understand. So some kind of organization like that I think might be worth considering.

Senator SANTORUM. Do you have any suggestions on something we might look at here on the committee to do that, a scheme that we could put together? Maybe "scheme" is not quite the right word.

Admiral OWENS. Well, I have tried pretty hard, Senator, to stay away from the Title 10 parts of the Department of Defense. I think it's appropriate from our charter now that I not violate that charter by trying to get into other people's business. If there are ways that I can be helpful in my private life in terms of giving you inputs that you would want to consider, I would be delighted to do that.

But I think for now I have not really thought through all of that, except to say that this world's largest business is 65 to 70 percent fixed cost and 35 percent variable cost. The variable cost translates to the war fighting capability. It's the ships, the tanks, the airplanes, and the operations out there. That's the money. As Willy Sutton says, where's the money? The money is in the fixed costs. The money is in the fixed costs.

So when we want to find money out of the defense budget, there's a tendency to say let's go to 8 carriers, or 6 divisions, or whatever. That's not where the money is. The money is in the fixed costs. As a business person, I think looking at the Department of Defense you'd say we've got to work on that infrastructure. I don't necessarily mean more bases or whatever. But we've got to work

at the fixed cost part of the defense budget. There I think is where your question was exactly focused, and how to do that efficiently is extremely important.

I know John White, our Deputy Secretary of Defense, and Bill Perry, the Secretary, have been spending a lot of time thinking about privatization and they have tried to bring a lot of that along. That is just one piece of the equation. There are many different things we need to do in this and I think they're working on many of them.

But time spent on that fixed cost part of the defense budget, quality time, thinking through how we're going to manage this world's largest business, is time well spent, I believe.

Senator SANTORUM. Thank you.

Thank you, Mr. Chairman.

Senator COATS. Thank you.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman, and let me thank Admiral Owens for, I believe, 33 years of service to this Nation.

This, I gather, is going to be your last appearance before Congress or one of your last appearances. I know you are retiring in a few days. You've got a broad smile on your face. Maybe that is because this is your last appearance before Congress. [Laughter.]

Senator LEVIN. You have made a big difference in terms of defense planning and defense thinking. I just want to thank you very personally for all that you've given to this country.

Admiral OWENS. Thank you, Senator.

Senator LEVIN. One of the things that you've done is to bring the JROC from its infancy to becoming a significant actor in the defense planning in the programming process. I don't think anyone has done more than you have to support jointness as a way of saving resources. I don't know of anyone who has done more than you have to promote technology as a force multiplier, to look at affordability as a reality principle.

We are very much in your debt for many, many contributions, indeed.

The first question that I have of you has to do with our success in trying to promote jointness, which has been very much on your agenda for so many years. This is really a request to ask you to oversimplify a very complicated issue, but let me try anyway.

On a scale of 1 to 10, 10 being the best, could you rate our success in increasing jointness over, say, the last decade, since the passage of Goldwater-Nichols?

Admiral OWENS. Senator, I think if you're asking for 1 to 10 in terms of the velocity—

Senator LEVIN. Where are we?

Admiral OWENS. I think the velocity is about a 6.

Senator LEVIN. How about where we are on the scale?

Admiral OWENS. In terms of attainment, I really believe there's enormous effort here. John Shalikashvili and I, too, have spent a lot of our time in trying to really get focused on doing the right things here, and at the same time maintaining the traditions of the services and maintaining a system where we don't break something very badly while we go on with this.



But I believe that we must proceed even more aggressively towards jointness—not to purple uniforms, of course. We're all proud of our Navy, Army, Air Force, or Marine uniforms. But we must genuinely get to true jointness.

I have a son who is a naval officer, a submariner. When I look at him, knowing what I know today, I want him to be joint because I know his life is going to be safer. I mean, I really believe that. I give speeches and say I'm no more a sailor than I am a soldier in a trench or a pilot in a cockpit. I really believe that.

But we don't bring our people up very jointly.

When I was at the 20 year stage in my career as a nuclear submarine commander in Charleston, I used to give speeches about how the nuclear submarine force had saved this country from the scourge of the Soviet Union and how just across the street there was this Air Force base where the housing was considerably better than ours. The implication here was that they didn't care as much about the country because their housing was better. They had more public affairs officers per capita than we had; they had more JAG officers, more lawyers than we had per capita. There was something that wasn't as good about them as there was about us, that we were always gone at the holidays, et cetera, et cetera.

I had no idea what those guys did, what those men and women did at the Air Force base or what the Army people did. Well, I can just tell you that I'm a convert.

On the other hand, no one had ever talked to me about the Army or the Air Force. In 20 years, I had had no experience—none.

We send our people to war colleges, and that is important. We must do that. They get joint credentials. That usually is at the 12 or 13 year point. Maybe we need to do something a little earlier. Exactly what, I'm not sure.

But I have been an advocate, for example, of this. You take a kid like myself or my son, who went to the Naval Academy. You send him to the Naval Academy for the first year and for the second year they all go off on cruise. They take their two suitcases and they go back at the end of the summer to their same academy.

Maybe we should send the whole class of them from the Naval Academy to West Point for the second year, and then the third year they all go on to Colorado Springs. Then the fourth year they'll go back to the Naval Academy to graduate. But they can do their summers with the services.

Senator COATS. The only problem with that, Admiral, is they would be hanging around the football field getting insights into offensive strategy of another kind. [Laughter.]

Admiral OWENS. This is a black program, sir. [Laughter.]

Senator LEVIN. Are you talking about football? Which is the black program? [Laughter.]

Admiral OWENS. Well, if you did this, the Naval Academy would get more field goal kickers, you see, and we're very interested in that from the results of the last two Army-Navy games. [Laughter.]

Admiral OWENS. But I do believe that if we can give our kids some awareness that the other services are really remarkable, equally remarkable to what they are, and that we're all Americans early on, that is really important to do.

I have written some articles about standing joint forces. This is something that you don't do without a lot of thought. But I am a believer that if you're going to fight wars together, as a joint force, which is the way Goldwater-Nichols has prescribed—and I agree with this—then we should be together 365 days a year in the fighting forces, not coming together as a joint task force but as a standing joint force; that is, to have under a three star leadership, Army Navy, Air Force and Marines, the war fighters together, planning their training schedules for the year, doing their basic training perhaps by themselves in some cases, but at least building their program across the year together.

That is a very big step because it would be a significant change in the way we do our business today. But I think, that it is one of those kind of discussions. I have tried to be a little outlandish with these two examples. But I think we should try to bring our young people together sooner because it's always better. When I've seen them together, they are always enthused about what they've seen.

Senator LEVIN. You've got a couple of days left before you retire, do you?

Admiral OWENS. Tomorrow, sir.

Senator LEVIN. Tomorrow.

Admiral OWENS. It's hard to say tomorrow after 30 years.

Senator LEVIN. I do think your ideas here are innovative. It keeps us moving in exactly the right direction.

By the way, talking about football, I have to tell you that a long time ago I proposed to the Secretary of Defense that the services come together, believe it or not, at the end of the year, take the best from each of the teams, and have a Freedom Bowl or a Liberty Bowl against an outside team, where our four services would play together.

Admiral OWENS. That's a good idea.

Senator LEVIN. Even that didn't get very far. [Laughter.]

Senator LEVIN. About every 20 years one of them gets invited to a bowl game, and the question then is what do you do in that case.

At any rate, it would be very helpful to us if you could do that.

Am I out of time?

Senator COATS. We're pretty loose here this morning.

Senator LEVIN. Then I'll ask one more question.

Senator COATS. That's fine. You've got time for one more question.

Senator LEVIN. All right. Thank you.

We've been working hard in this committee and at least in one of our subcommittees, maybe more, on the Army's efforts at digitalization. Also we've been trying to come up, sort of related to that, with trying to get the Air Force to add a data link inside their fighters.

There has been some either resistance to it or inability to do that. What is the problem with trying to get the data link inside of our Air Force fighters? It would help us a great deal in terms of linking the services.

Admiral OWENS. Senator, as I think you understand, the digitalization of the battlefield is so enormously important. You have been doing a lot of work with the Army and the ground forces in

this area, and with some of the systems that are so enormously important to do that are coming along very well. In the ground forces, both the Marines and the Army are proceeding handsomely in that regard.

For us the challenge has been how do you digitize all of the battlefield, that is, not only the ground forces but also the air. You want not only for the air to be digitized and the ground digitized, you want it all to be digitized together.

These links are enormously important. It comes in acronyms—PLENTY. It's TADIL-J, LINK 16 JTIDS. It all kind of means the same thing.

It is quite a remarkable capability to share all the information in the air with a high capacity data link that allows that kid in a strike Eagle to be aware all the time of all the information that could possibly affect him.

He will know, for example, if he's flying with a wing man and the wing man has locked on an enemy aircraft. Then the kid sees it on his display, sees immediately that his buddy has locked on to an aircraft and he knows which one it is. He'll also be able to see all the aircraft within a couple of hundred miles if he wants to because he'll have data link to him what the AWACS and other sensors are seeing, including ground based radars.

If you digitize and if you have the advent of differential GPS to make sure that the grid is the same grid, so you're not seeing two targets when there is only one there, if you digitize and you have that differential GPS, then it's, in my view, about an 80 percent solution to the combat ID problem for one thing. We will stop killing ourselves. We'll have our people aware of where all the blue forces are and, therefore, they won't shoot at them.

So digitalization air and ground is very important.

In the Air Force and the Navy, with the older fighters—F-18A/B, F-16 A/B, there is always a problem of the integration of the TADIL-J capability into that aircraft. So it's space and it's money to integrate the software. You see estimates of several tens of thousands of dollars, I think close to \$100,000, for the MIDS update to an aircraft, per aircraft.

The Air Force, the Navy, and the Marine Air have come together in an important way in this regard, and I think you find now that over the last 6 months there has been a profound commonality that is being displayed in our recommendation for us to proceed and the fact that we know that we must get to this digitalization sooner rather than later.

So the aircraft, like F-18E/F and F-22, the later strike Eagles, et cetera, will be the first. But then we'll try to push that link into the other aircraft. I think the problem in terms of numbers for the Air Force is F-16.

They are working very hard on it. They're trying to find a JTIDS-like capability that is small enough to fit in and then to integrate in that airplane. There is a lot of pressure from all of us, including the Air Force, to make that happen.

I think it is the right thing to do and you are right on it.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Senator COATS. Thank you, Senator Levin.



Senator HUTCHISON.

Senator HUTCHISON. Thank you.

If we could come back from joint academies and military superbowl to the real world here, I was interested in your comments on the big savings of privatization.

You mentioned specifically pilot training bases as being an opportunity that has worked. What other kinds of bases would you pinpoint as the best opportunities for privatization and saving?

Admiral OWENS. Well, I'm not enough of an expert to give you specific recommendations, but from what I know, and I've read a lot and thought about it a lot in the last couple of years, Senator, my belief is that you should not rule out very large bases. You should not rule out bidding our Norfolk Navy Base or San Diego Navy Base, or Langley, or Pendleton. Bid the whole thing out.

I think there are companies out there that would bid. You'd have real competition. You could demand quality in the way they run the base. You could do it for a 3 year contract and if they weren't doing it, there is competition from someone else who will do it right.

So my belief is that we should talk about this broad range privatization as a reality. Also, it would keep more people employed, because I think if we do this more efficiently, then there will be money for that also, so that some of the bases that we may not be able to afford when we run them can be run much more efficiently by a private contractor. Therefore, we can keep more of the bases alive.

So certainly bases are an area in general where you could look at big-time privatization, but perhaps also some of the laboratories.

We have a lot of money in labs and test and evaluation facilities. Some of those could be privatized, I believe. I am less certain about that area than I am about the bases. But I believe that consideration should at least be given for that kind of broad range privatization. There is a tendency in many of our circles to talk simply about a particular functional area—security or lawn mowing services, or whatever. I believe that is important, of course, but, really, we must look at it much more broadly.

Housing is an area, a functional area, where we can do efficient and important privatization. We do not run housing very well in the military.

I was told by Jack Sheehan, who is our CINC down in Norfolk—let me see if I can get these numbers right—that they have just built this huge military housing area and those houses cost \$130,000 per house. Their estimate is that it will cost \$1,000 a month to maintain them.

Just looking at those numbers, that's \$12,000 a year. I know I don't spent \$12,000 a year to maintain my \$130,000 house today. So I think that you could very well see that large projects like that could be done quite efficiently by privatizing them.

Senator HUTCHISON. Well, on housing, I think the early experiments have worked very well. I know in my State we have a couple of areas where there is private building and leasebacks and it is more efficient. They are saving thousands of dollars, which I guess across the services could be hundreds of thousands in savings.

Admiral OWENS. I think it has worked very well. Yes.

Senator HUTCHISON. What about the maintenance area? That, of course, is one of the big issues that we tried to deal with in 1995 and is going to be back in 1996. Do you think that maintenance depots area an area that can be privatized with efficiencies, but also keeping our security for ramp-ups if we need it and that sort of thing intact?

Admiral OWENS. Well, I am an advocate of it. I think it is important that we keep some core capability for each of our services in the various depots, but that we should minimize the core and maximize the private side. The more we do that, the better off we'll be.

Senator HUTCHISON. Do you think, in looking at the 60/40 issue, that we should go to another percentage, or would we be better off to take it off and let the services make those decisions?

Admiral OWENS. I'd take it off, Senator.

Senator COATS. I'm sorry, but I didn't hear that answer.

Admiral OWENS. I'd eliminate a particular percentage split.

Senator HUTCHISON. Let the core workload be decided by the services according to their needs?

Admiral OWENS. Yes.

Senator HUTCHISON. The basis, the fixed costs that you mentioned, do you think that we now are down to the right number of bases or do you still think we have excess? Do you have a feel for the foreign bases versus domestic bases and if that is in the right percentage?

Admiral OWENS. I think this is really an important question. To get to my earlier point about fixed versus variable costs, the fixed costs are where the money is. That is represented in large part by bases.

There is a very important area of savings, in my view, in joint bases. We have only one joint base, to my knowledge, in the United States. I find that remarkable. You only go today to Army bases, or Navy bases, or Air Force bases. There's only one joint base in the United States Department of Defense, and that's Joint Reserve Base, Dallas, I believe.

Senator HUTCHISON. Fort Worth. Carswell.

Admiral OWENS. Yes. It's great, I think.

Senator HUTCHISON. It is.

Admiral OWENS. I've gone there and talked to those young people. You see Army, Navy, Air Force, and Marines, and you talk to them across the table. They really like it a lot.

You ask them what frustrates them and they say well, I have a warehouse here that is an Army warehouse, and I have a Navy warehouse, and I have an Air Force warehouse. Why do I have to have three warehouses when we could do it all in one warehouse? I must say yes, why. Because that's our culture is the answer.

And so, there's two things there. One is that joint bases in general could very well be an area of prudent, efficient, and important consolidation.

Senator HUTCHISON. Is discussion of this going on or are they looking at Carswell as a prototype experiment because it is working?

I went to Carswell when this first came about. They were positive, but cautious, about it. Every time I have gone there it has gotten better and better, and they really are happy with it.

Admiral OWENS. I think it really is great, and they really do feel it sincerely.

Senator HUTCHISON. Is this being looked at as an experiment that might be working?

Admiral OWENS. I think it is being seen—I mean, it is an important experiment. I'm not sure it has had very much attention paid to it, frankly. I've tried to raise it in some of my discussions inside the staff of the Pentagon. But I do believe this area of joint consolidation, like that, using that as an example, is very important.

Senator HUTCHISON. If we did more of the joint bases, do you think there is more shrinkage that we ought to be looking at? Believe me, I'm the last person who wants to take on BRAC again, but just since we're being very academic here and talking about military super bowls, let's be really academic.

Admiral OWENS. Yes. The budget top line in real terms comes down as I said earlier, by 45 percent. If you look at all of the BRACs that have been done—BRAC 1989, 1991, 1993, 1995—the total base structure that has been reduced I think is about 22 percent.

Now back to that fixed cost part. If the top line goes down by 45 percent, you really should take the fixed costs down by 45 percent to stay in balance. So I believe that, through privatization and consolidation, it is necessarily to take those savings. Where the rubber meets the road is the industrial base in all of our States. In your State, too, Senator, I think the need to get more money into procurement so that we can recapitalize this very significant and important military of ours for the future is so important. The only way you get that money is by reducing the fixed cost structure to get some of the savings to put it into procurement.

So I am a believer in both the privatization and the consolidation further, whether it's a BRAC or some other way. There may be other ways that we can do prudent consolidation.

Senator HUTCHISON. Just a thought to follow up. The percentage of foreign bases to domestic, are we right where we want to be there?

Admiral OWENS. That's right. I didn't answer that.

There has been a really significant cutback in the number of foreign bases, as you know, especially in Europe, where the Army and the Air Force had a radical reduction, as they have gone, I think, from about 400,000 total troops to about 100,000 today.

A lot of those bases have been shut down. One of those assessments that I mentioned to you earlier was overseas presence. We have tried to look at the base structure that is necessary for America around the world for the future, to try to say what's really important and what is less important.

I believe that we are getting very close to being about where we should be. I am a strong advocate of keeping 100,000 troops in Europe and 100,000 troops in the Pacific and in having the ability to reinforce contingencies that we have certainly learned about in this last couple of years in logistics bases around the world, where we have to have access in order to keep America's presence possible.

So I think we need to continue doing work in that area, too. I'm not saying that's all right. I think we need to look at that, too. But



we have certainly made a lot of headway in the overseas bases part.

Senator HUTCHISON. Thank you.

Thank you, Mr. Chairman.

Senator COATS. Senator Warner, your timing is impeccable.

Senator WARNER. Mr. Chairman, I learned from you .

Senator COATS. Oh, I don't think so.

Senator WARNER. Admiral, first, let me join those that wish you well. You have had what we call a Navy 4.0 record of many years, and I hope that you and your family and all of those who have contributed to making your career what it has been and what it will be remembered for take with you a great sense of satisfaction.

Admiral OWENS. Thank you, sir.

Senator WARNER. I remember our very first meetings over in the SOUTHCOM in the NATO area with Admiral Boorda and many other times together.

I do wish to draw your attention to the JROC's consideration of the BMD review. I must say I take issue, with all due respect. If I had to pick the single highest priority that this Senator will work on in the coming year, as I have in the past years, it would be the TBMD program.

Perhaps I am mistaken and please correct me if I am mistaken in my interpretation of JROC's views. Does JROC have the basic position that the most cost effective approach to the aggressor, whatever or whoever it may be with respect to this ballistic missile short-range, that you want to emphasize the deep penetration, surgical takeout of the weapon itself? Is that the priority you should pursue?

I am concerned, frankly, about the upper tier requirements being less effective. I want you to straighten it out for me.

Admiral OWENS. No, that is not the JROC's position, Senator. Our view is that this is enormously complex, as you know, to go after this TBMD problem. There are several important things, I think.

One, it has now been some 5 years since Desert Storm. We do not have Patriot PAC III or Aegis Lower Tier out in the field, and we won't have for another 3 or 4 years. JROC believes that more money needs to go to Patriot PAC III and Aegis Lower Tier to get some capability to provide protection of our forces in the battlefield at the soonest possible time. So money needs to go into those two systems to make them come to IOC.

They have been the poor step-children of the much more visible Aegis Upper Tier and THAAD and other programs which we also like. But we must get Aegis Lower Tier and Patriot PAC III in the field and we must get a substantive CEC-like ballistic missile C<sup>3</sup>I capability together with them. That has to be funded. So, we have advocated the funding for that BM-C<sup>3</sup>I capability to go with those two systems, to get them out there, to protect our troops, to protect the seaports, to protect the airports, to protect the barracks, to protect the wider area that both Lower Tier and PAC III can provide.

We also believe that sophisticated strike operations are an important element of, though certainly not the solution to, but an important element of going after the kinds of vehicles that will launch these weapons in the future. It won't do everything, but it will re-

duce the threat significantly. If you see that battlefield, as I described earlier, with great fidelity in a very large battlefield and you know what's happening on the battlefield, you can strike it quickly, with standoff missiles, be the Tomahawk or ATACMS with BAT submunitions, or JSOW. But we will have the ability to strike them. It's one part of the issue.

The other part, of course, is that we have to go after the long-range ballistic missiles. So missiles. So, you have to look at the threat that we face, both to our country as well as to our troops in the field in the future.

We have evaluated that threat with an eye to what is coming, likely, and what other threats we face in an attempt to try to say let's do the most important things, let's emphasize those, let's keep the other capabilities coming along strongly, but at the same time we don't have enough money to do everything.

So, sir, I feel like eight theater ballistic missile defense systems is too much, that we must trim these things down. We can't afford them all and we need to look at them prudently.

So I am a big advocate of THAAD and I'm a big advocate of Aegis Upper Tier. But the threat there I believe is not as profound as the threat for which it is necessarily to deploy the Patriot PAC III and the Lower Tier, both of which have a good capability against cruise missiles, which I worry about just as much as ballistic missiles. So if we are worried about defense of our troops in a theater or delivery of weapons of mass destruction, be it nuclear, chemical, or biological, you want to have a capability to defend against cruise missiles in that battlefield as well. Aegis Upper Tier and Thad don't do that.

It is an important consideration that Aegis Lower Tier and Patriot PAC III defend against both cruise missiles and ballistic missiles.

Senator WARNER. I just wanted to clarify. So your statement is that you do not feel that the major emphasis should be put on the deep strike tactic here and that you want to balance allocation of funds as best you can between the programs, but recognizing that in the near-term perhaps we can achieve greater protection through a system singled out by your panel and that that's the way to go. Is that it?

Admiral OWENS. Yes, sir. I think that's generally right.

Senator WARNER. I learned a lesson and I'm just going to take a minute of the committee's time. I was with Senators Nunn, Stevens, and Inouye in Tel Aviv one night when the last of the missiles hit that helpless city. We were right in the defense ministry. I'll tell you, quite apart from all that took place in a very calm manner, at the end of the strike, when we heard the impact, the Defense Minister turned to the four United States Senators and in a sense said it's tough for us not to retaliate and I hope you appreciate that.

So although they had deep strike capability to go in there, as we and others were doing it, they withheld. I would not want to see a strategy dependent on that.

Admiral OWENS. I agree with that, sir.

Senator WARNER. That is just a little footnote.



Senator HUTCHISON. John, could I ask him just one quick question on the PAC III?

Senator WARNER. Yes. Sure.

Senator HUTCHISON. Do you feel like we are giving enough money for PAC III to be on-line at the earliest possible moment or do you feel like it is on track and we're doing what we ought to be doing?

Admiral OWENS. Senator, we have not given enough money to Patriot PAC III, I think. It has drifted. It's initial operating capability, it's IOC, has moved out in years. So we thought, I think many of us, that it would be with us. At the end of Desert Storm I think we thought it was going to be with us in 1995. Then it was 1996. Then it was 1997, then 1998, and now it looks like it's the 1998-1999 timeframe.

We've got to make sure it comes so that we have something in our hands.

We also want to have that THAAD UOES in 1998, which has been protected by the JROC's direction. So I really think it's important that we have enough money in it, and the JROC has recommended that more money be put into Patriot PAC III to make sure that that IOC stays on track. I think that is being incorporated in our defense budget submit for 1997.

Senator HUTCHISON. Thank you, John.

Senator WARNER. Fine, Senator.

We point out here that the PAC III is the single largest item in the BMDO budget. Am I not correct on that?

Admiral OWENS. You could be correct for 1996. Yes, sir. As we get out to 1997, 1998, and 1999, some of the other systems ramp up dramatically and become larger.

Senator WARNER. The fiscal year 1996 Defense Authorization Act, which the President signed February 10, established in law a core theater missile defense program consisting of four TMD programs, including THAAD and Navy Upper Tier. Again, I ask you for the record, why did the JROC not advocate deployment of these systems consistent with what we intended here in the Congress?

Admiral OWENS. Well, the JROC, sir, is in a position of trying to look across the technologies in the systems, evaluate the threat, evaluate the need for recapitalization that I described here and the various risks that we face for our troops.

As we looked at THAAD and Upper Tier, both of which I like a lot, we thought the important thing here was to make sure the technology was available for THAAD, that the UOES, the initial capability in the event we needed it in an emergency be protected for 1998, and that we put some money in Aegis Upper Tier above what had been in it before because it's a good system, and that we allow, because of the threat that we face as a Nation and the threat that we see coming from other rogue Nations, perhaps North Korea, with the Nodong, et cetera, that we had a prudent risk that we could take by moving the Aegis Upper Tier and the THAAD to a decision about the year 2002 or 2003, and that prudently this would save a little money but, at the same time, protect our great equities in protecting the troops, protecting the THAAD UOES, and giving a little bit more money to Aegis Upper Tier, and at the same time taking advantage of the sort of systems of systems approach

to look at it all as a whole, and not just individual program by program.

So, sir, I guess that's a summary of where we are. It's not a sign that we don't support either THAAD or Upper Tier. It is a sign that there isn't enough money to do it all and that we have to take some prudent decisions to try to find a rational way to go about allocating what money we do have.

Senator WARNER. Admiral, we respect your organization. It has a certain degree of independence and that's why it was set up, to give your best professional view. But I would opine at the moment that I am inclined to think that the Congress, in addressing the current forthcoming budget, will likely adopt a policy consistent with 1996 and that we may well try to reverse some of the decisions that you have recommended, because we feel very strongly that we can't wait a decade for Upper Tier. Thank you very much.

Senator COATS. Admiral, I have just a series of questions that I'd like to ask and if other Members here have additional questions, we would be happy to let them do that.

Let me just ask you, quickly, do you believe that you have the authority, the statutory authority, you now need now that we've added some things in this year's authorization bill? Are there additional authorities that you believe JROC would be requesting or that under Goldwater-Nichols we would add to Title 10 to give you additional authorities?

Admiral OWENS. Senator, I think we're okay for now. I think it would be a good endeavor if we could work with the staff in the future and with your committee to continue to evolve this journey. We learn more about ourselves as we go through this journey all the time, and it could very well be that, as time goes on, there could be some prudent changes that might be useful and that would be my only recommendation.

Senator COATS. But nothing specific at this particular point?

Admiral OWENS. No, sir.

Senator COATS. Second, help me on something. One of my concerns here—and this is just a layman's view of all of this—is information overload. We're expanding the battlefield, our view of the battlefield, the bits of information that come in regarding what's taking place in that battlefield. We collect all of that. That has to be analyzed. Decisions have to be made on the basis of that analysis. It has to be communicated. Those decisions have to be communicated to all the participating parties all the way down to the individual airman, sailor, or soldier, so that he can execute.

How big of a challenge is it given the huge load of bits of information to take that and successfully translate it down to that platoon commander, company commander that's making decisions in the heat of battle when things aren't working as well as they do in the lab? How are you addressing that and what is your confidence level that we are going to be able to utilize all this information successfully?

Admiral OWENS. It's something we're not going to be able to do very well by ourselves. This last 2 years, we've taken the JROC out to be together with industry, to be together with some of the principal companies in our country, to spend a day with the CEO and the vice presidents to talk about what they're doing that is impor-

tant to our military. So we've had a chance to do this with maybe 20 companies around the country.

What I have learned from that is that they are remarkable. Because we are not doing a lot of these kinds of conversations, they may not exactly understand what our need is. But there is some remarkable stuff out there. So, in answering your question, we have learned a lot about your question from being out in industry.

There are two parts of it. One is dissemination of the high quantity of data. There are probably two keys to that in the future from the commercial marketplace. One I learned about at CNN, frankly, and it was the constellation by which CNN will rent to broadcast CNN around the globe in 1997 I think in some significant number of language. High bandwidth satellite direct broadcast capabilities. We call it in the military today Global Broadcast System (GBS). But with that you can broadcast many channels of video, for example, and you can pick it up with an 18 inch dish antenna. So that soldier in a battlefield in his HUMVEE will be able to stop, put up an 18 inch dish antenna off the shelf from America industry today—they exist; you can buy them at Radio Shack—and receive global broadcast system broadcasts that gives him the picture that that predator at 30,000 feet is taking right now. So he can see the area around him as he desires in great clarity.

The ability to broadcast the information is there. But the one that you mentioned is how do you analyze this stuff. We have never had an area search capability for our military. So this is a whole new area for us. We have never been able to see a very large battlefield all at the same time, 24 hours a day, real-time, all-weather. It has never happened before.

We will have in the next 3 or 4 years the capability to do that. So, the question then, your question, is how do you get focused on what the right information in that battlefield is. There is a very significant amount of money in the defense budget for automatic target recognition. Some of that stuff is very exciting. There are several companies that have done remarkable work on things like how do you analyze a mammogram for malignant tissue. It's the same problem. How do you find the lump that looks suspicious and then narrow in on it in terms of parameters to say that's likely a malignant cancer?

That same technology is going into many of our automatic target recognition features. So when you see that large battlefield, you'll be able to say there are 20 T-80 tanks in that area, there is a surface to air missile launcher in this area, and we recognize it.

We have done a lot of work recently in terms of not relying on just one sensor to see it all but relying on a queuing concept, where one sensor may be able to detect that there are a large number of vehicles moving over here and another sensor in the area immediately shifts it target to do a postage stamp look at those targets to say yes, they are T-80s. That is coming together through the Army ASAS system, the Army fused battlefield command and control system. America industry has really come a long way in bringing those kinds of things together.

So we are quite focused on it. There is a lot of money on ATR. There's a lot of money on dissemination, and we need to do a lot more work on it. But I think, from what I've seen, we're 3 years



away from having a very significant capability, even in this important area that you mentioned.

Senator COATS. The last piece of that puzzle, chain of command, is the human execution. I guess I draw some comfort from the fact that I used to walk by the arcades in the malls and think these kids were wasting their time. Then my son got involved in Sega and all that stuff and I watch the processing capability of these young people while my VCR blinks 12. They are doing some fairly extraordinary things. [Laughter.]

Senator COATS. So maybe I don't need to be as worried as I am about the capability of the next generation to handle this pretty extraordinary revolution in data collection and input and then the decisions, the quick decisions that have to be made in terms of how to deal with that.

Do you share that?

Admiral OWENS. I think you're right, Senator. I think they're a lot better than we are in terms of their ability to accept all of this as part of life. They seem to be able to use it quite handsomely. Some of the user friendliness that is being designed into these systems in our America industry, which we need to take lessons from in America military, I think will be helpful also. I think we're going to find solutions to that.

High bandwidth does not necessarily mean it is much more complicated, the stuff that's coming to you. High bandwidth may well represent a picture, and a picture, of course, is worth a thousand words. So if you get that picture via hand bandwidth, it does not take a lot of smarts to say my God, there are 10 tanks over there and I need to do something about them. So it does not necessarily mean that bandwidth transcribes to complexity.

Senator COATS. To the extent that you want to do this or feel comfortable doing this—and you don't necessarily need to give conclusions on specific systems—what are some of the specific program decisions that you think we're going to be confronted with, and I mean the real crunchers in the next 5 years or so as we look at this procurement gap and the budget realities of a limited or fixed top line?

Admiral OWENS. Yes.

Senator COATS. What should we be focusing on?

Admiral OWENS. Well, sir, as you look at the ability to recapitalize, something on the order of the bottom-up review force structure, which I believe we should do. That is a long discussion, but I think we should have a bottom-up review. Roughly the 10 active Army divisions, the 11 plus 1 carriers and the 20 tactical fighter wings for the Air Force are about the right size force for America's military.

In the context of that, I think the critical procurement decisions as we look to the future are—the first one is tac air. For the top 20 procurement programs in the Department of Defense today, 45 percent of that procurement money is going into tac air in the form of F-18 E/F, F-22, JAST. That's a lot of money. Any way you cut this, the tac air decisions are going to be of enormous importance. How we make those decisions on F-22 and F-18E/F, and what's the force structure, and do we build three versions of JAST or could we do with two, or maybe one, can we get to a common airplane

so we can build them a lot cheaper—there's a lot of commonality in that present plan. But we need to continue that search for commonality.

But the tac air dollars are going to be very important, and the tac air size is very important.

I think a second area is how you recapitalize the United States Army. My Army, your Army, is not doing well in terms of recapitalizing today. So when you look at 80,000 trucks in the Army or the tank infrastructure, or the Bradley fighting vehicle infrastructure, and you ask how long, how many years, what's the cycle for recapitalization of these categories of weapon systems, I think for trucks that you recycle it every 80 years.

Senator COATS. Every.

Admiral OWENS. It's 80, I believe. Eighty year old trucks are hard to maintain. We've got to do something about that.

So recapitalization of the ground forces, some of those simple vehicles, the ones I mentioned, and also about things like tents. How do you recapitalize tents. Who is thinking about that? Is there enough money to recapitalize the things that we don't think about on a day to day basis, because there's a lot of stuff out there that has to be bought new, so much of it every year, to keep us going.

So recapitalization of the ground forces I guess is a second area.

Finally, I'm an advocate in the shipbuilding area of trying to find efficiencies in the form of perhaps looking for substitutions for nuclear power for the carriers. Nuclear power is expensive. We need to look for conventional power plants that make sense. Perhaps the commercial diesels that are out there today are a part of that answer, or a commercial diesel with gas turbine combination in a carrier could do it reasonably.

So I think what kinds of large ships we procure is a very important decision for us to make, because the rate of capitalization of the Navy, despite many efforts to try to make it as business-like and as recapitalizable as possible, if you're only buying four or five ships a year and they last 30 or 35 years, you can see that 35 years times 5 ships, if you're building 5 a year, turns out to be less than 200 ships. In the long-term, we will not have a 300-plus ship Navy based on the existing rate.

So that is a big decision, how we look at recapitalization in the Navy.

Then I guess there are these important areas of how you genuinely get rid of some of the stuff that we all love and have lived with for years—the radios and the kinds of command and control systems, and just say enough is enough—stop. Let's go to new systems. Let's take some of this off-the-shelf commercial technology that makes a lot of sense, global broadcasting system, fiber networks, the personal cellular revolution, and tie it together in new ways through Windows 95 for the U.S. military. We call it GCCS and GCSS. Make it all come alive and cancel our efforts in these systems, these legacy systems that we love so well and on which we're spending billions every year.

How to do that, how to make that transition, is a very important piece.

Senator COATS. In the services, as you've indicated, the top line has come down 35 percent to 40 percent. But I believe the agency budgets have only come down about half of that.

Now is that a conscious decision? Are we on the right track there? Do we need to look at ways in which we can find savings within the agencies in addition to the services? What's your recommendation along that line?

Admiral OWENS. In the shift of moneys inside the Department of Defense, the balance is a very important thing to focus on. I think the total budget for the defense agencies now is about \$46 billion. I'd have to check that number, but I think that's about what it is. It may be a little bit less.

That has gone up relative to the services' accounts. Many of those agencies are combat support agencies, and the Chairman of the Joint Chiefs and I have a responsibility to look at them and to ask the question are they serving our military war fighting capability prudently.

The JROC is committed in this next year to take a more profound look at the agencies, to ask that question in a more precise and searching way because we must insure that the discipline with which we approach the service budgets is realized in the agencies as well.

I happen to think that because a lot of the functions have shifted from the services to the agencies, it's hard to just say well, the percentages should come down about the same. But I certainly agree that we need to have a much more careful look at the agencies as we look at the future.

Senator COATS. Are there any last thoughts you want to share for the record?

Admiral OWENS. I have been honored to be here today with you, sir. This committee has been enormously important. We have always relied on you individually and as a committee. We don't feel alone with you here and we very much have appreciated your support and I have appreciated your listening to me this morning.

Thank you.

Senator COATS. Well, thank you and, again, congratulations for an outstanding career in service to our country. We know that in your future endeavors your input will be valuable to us. I hope that we can take advantage of that.

I do have some questions that have been submitted for the record and we will pass those on to you and your staff. We look forward to a continuing relationship with you and value your input. Thank you for your great, great service and particularly for the work you have done these last few years in getting us outside the box and forcing us, in many cases, to look, appropriately, at what the future may hold. We appreciate that very much and it is important to the future security of this country. Well done and best wishes.

Admiral OWENS. Thank you, sir.

Senator COATS. Thank you.

With that, this hearing is adjourned.

[Questions for the record with answers supplied follows:]



## QUESTIONS SUBMITTED BY SENATOR JOHN W. WARNER

## BMDO PROGRAM

Senator WARNER. I understand that the JROC played a key role in the recent ballistic missile defense program review headed by Dr. Kaminski. Is it true that the JROC advocated substantially deeper cuts in BMDO's Future Years Defense Program than those approved by Dr. Kaminski? If so, what was the rationale?

Admiral OWENS. The final JROC recommended cuts in the BMDO Future Years Defense Program were not deeper than those approved by Dr. Kaminski. The JROC recommendation was \$2.8B (approximately \$2.3B for theater missile defense and \$.5B annually for national missile defense) over the FYDP. Dr. Kaminski's final budget submission was very close to the JROC recommendation:

Fiscal year 1997	Fiscal year 1998	Fiscal year 1999	Fiscal year 2000	Fiscal year 2001
2,891.8	2,919.3	2,753.6	2,730.4	2,825.3

Senator WARNER. From what I have seen of the BMDO Program Review, it appears that wide area or upper tier theater missile defense programs have been significantly deemphasized. Did the JROC advocate this approach? If so, why?

Admiral OWENS. The JROC recommendation was focused on the force protection issue. Rather than have all eight systems that were being advocated by the Services slip to the right, the JROC worked to insure the lower tier programs (PAC-3 and Navy Area System) do not slip to the right, thus protecting the force against the overwhelming portion of the near term threat. Even with the longer range threat minimal before 2005, we chose to mitigate risk by not affecting the currently planned FY 98 THAAD USER OPERATIONAL EVALUATION SYSTEM (UOES) consisting of two radars, four launchers, and 40 missiles. The Engineering and Manufacturing Development (EMD) phase will evolve the UOES to the objective system for a production decision in FY 2002 with objective THAAD First Unit Equipped (FUE) possibly in 2003. The JROC believes that this was a more balanced missile defense program, one that is more affordable, better matched to the missile threats we will be facing, and has better prospects for successful execution.

Senator WARNER. Upon what threat or requirement is the JROC basing its recommendations concerning ballistic missile defense program allocations?

Admiral OWENS. The DIA threat analysis for theater ballistic missiles was used by the JROC.

Senator WARNER. Given the JROC's position on dramatically cutting the BMDO budget, one might conclude that the JROC is not the best organization for advocating joint organizations like BMDO, which consume significant resources for future requirements. How do you respond to this assertion?

Admiral OWENS. The JROC decision did not intend to imply in the least that the JROC does not support BMDO as an organization. BMDO does a great service for the Department of Defense in the performance of its mission. However, due to significantly constrained resources, the JROC had some strong feelings that a reprioritization was in order. Hence, the willingness to assume some prudent risk by slipping the upper tier systems in order to accelerate the lower tier systems as quickly as possible, and, provide badly needed dollars back to the Services for recapitalization purposes. I believe that the JROC action in this case is what was truly intended by the authors of the Goldwater/Nichols Act of 1986.

Senator WARNER. What systems or programs in the Services were judged by the JROC to be more deserving of funds otherwise planned for BMDO, and upon what threat were such judgments based?

Admiral OWENS. The JROC recommendation wanted to insure that we focused sharply on the here-and-now threat by prioritizing the lower tier systems to insure we put them in the field as quickly as possible and secondly, to provide dollars back to the Services for other pressing recapitalization needs. The JROC did not specify what those priorities should be.

## QUESTIONS SUBMITTED BY SENATOR DAN COATS

## PROCUREMENT FUNDING

Senator COATS. You illustrated clearly exactly what this committee pointed out last year in our committee report—that the procurement accounts are significantly underfunded—and that if we don't adequately fund these accounts now, our forces will suffer from a lack of modernization in the near future.



Most of the solutions you suggested to find the necessary funds to plus-up the procurement accounts from within current defense budgets would not yield sufficient funds until the outyears, thereby leaving us with the inadequately funded procurement accounts we are seeing today.

Don't you believe it is necessary for these procurement accounts to receive some additional funding now? Where should these funds come from?

Admiral OWENS. I believe we should make a strong beginning toward this \$60B/Year procurement goal starting in the FY 1998 budget year. I still believe we must look at the fixed part of the budget, the 70 percent I talked about earlier. We must privatize in a big way and need your help to allow us to do so. We can reap great savings through privatization. The area of commercial technology use, especially communications, is an area fertile for savings. The bottom line is we must seek savings in the fixed cost side of the budget and avoid further cuts to the warfighting side—the tanks, aircraft, ships, etc., that will make the difference with potential adversaries.

[Whereupon, at 11:30 p.m., the committee adjourned.]





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